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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/287,190	04/06/1999	MASAAKI ASANO	DAIN:496	5998

7590 03/12/2003
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EXAMINER

BERCK, KENNETH A

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/287,190

Applicant(s)

ASANO ET AL.

Examiner

Ken A Berck

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasao et al in view of Shinoda et al. (US 5,661,500) and Ueoka et al.

Regarding claims 1, 3 and 9, Sasao discloses (fig 1) a plasma display panel having a front plate (10) and a back plate (20) parallel to and facing each other having a space there between for a discharge gas, plural pairs of display electrodes (13X and 13Y) for surface discharge on the front plate parallel to each other, with each display electrode pair comprising a sustain electrode (11) and a bus electrode (12), a dielectric layer (14) covering the display electrodes, and a protective film (15) overlying the dielectric layer, address electrodes (A1-A3) on the back plate at right angles to the display electrode pairs, and a dielectric layer (22) covering the address electrodes, and linear ribs (23) located between the address electrodes, with phosphor layers (24R, 24G and 24B) located between the adjacent linear ribs so that they each extend intermittently in the lengthwise direction of the ribs for each pixel, wherein each phosphor layer covers both the surface of the dielectric layer and the surface of the linear ribs within each pixel (Fig 1).

Sasao discloses the above claim limitations but fails to clearly point out the phosphor layer does not exist in the region on the ribs that corresponds to the region between the adjacent display electrode pairs.

Shinoda discloses (fig 1) the phosphor layer coated on the sidewalls of the barriers and does not exist in the region on the ribs that corresponds to the region between the adjacent display electrode pairs in order to exhibit high image brightness at a wide view angle range.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the display of Sasao with the phosphor layer coated on the side walls of the barriers and does not exist in the region on the ribs that corresponds to the region between the adjacent display electrode pairs in order to exhibit a high image brightness at a wide view angle range, as taught by Shinoda.

Regarding claims 2, 4-8 and 10-11, Sasao discloses all of the above claim limitations as well as a red-emitting phosphor layer, a blue-emitting phosphor layer and a green-emitting phosphor layer adjacent to each other with a rib there between and these three different phosphor layers each extending intermittently in the lengthwise direction of the ribs.

Sasao fails to clearly point out linear shield layers on the front plate parallel to each other located between an adjacent display electrode pair to be parallel to the display electrode pairs and the dielectric layer being dark in color and containing a dark pigment.

Regarding claims 2, 6 and 10, Ueoka discloses linear shield layers (22f) on the front plate parallel to each other located between an adjacent display electrode pair to be parallel to the display electrode pairs to avoid break down of the transparent dielectric layer.

Regarding claim 4-5, 7-8 and 11, Ueoka discloses (column 8, lines 40-44) black inorganic pigment being mixed into the dielectric paste, and the dielectric layer being black to prohibit incident light from reflection, and to improve the contrast of an image formed on the display area.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the display having the dielectric layer of Sasao with the linear shield layers (22f) on the front plate parallel to each other located between an adjacent display electrode pair to be parallel to the display electrode pairs to avoid break down of the transparent dielectric layer and black inorganic pigment being mixed into the dielectric paste, and the dielectric layer being black to prohibit incident light from reflection, and to improve the contrast of an image formed on the display area, as taught by Ueoka.

Response to Arguments


Applicant argues that Shinoda fails to disclose phosphor extending intermediately in the lengthwise direction of the ribs so that the phosphor layer does not exist in the regions on the ribs that correspond to the region between the adjacent display electrode pairs. Examiner points out (fig 7) the phosphor layer (EU) located between adjacent linear ribs covering the surface of the dielectric layer and the surface of the linear ribs.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken A Berck whose telephone number is (703)305-7984. The examiner can normally be reached on Mon-Fri 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

kab 
March 10, 2003


MICHAEL H. DAY
PRIMARY EXAMINER